

5257

5257

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	<i>Hydrographic</i>
Field No.	<i>5257</i>
LOCALITY	
State	<i>Alaska</i>
General locality	<i>Aloqnak Island</i>
Locality	<i>Iskut Bay</i>
<u>1932</u>	
CHIEF OF PARTY	
<i>H. B. Campbell</i>	
LIBRARY & ARCHIVES	
DATE	

5257

Form 504
Ed. June, 1928
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

APR 29 1933

State: Alaska

Acc. No.

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. 25

5257

LOCALITY

Afognak Island

Izhut Bay

1932

CHIEF OF PARTY

H. B. Campbell



DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5257

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 25

REGISTER NO. 5257

State ~~S. W.~~ Alaska

General locality Afognak Island

Locality Izhut Bay

Scale 1/20,000 Date of survey Sept.-Oct., 1932

Vessel U.S.S. DISCOVERER

Chief of Party H. B. Campbell

Surveyed by H. B. Campbell, W.M. Scaife, G.A. Nelson

Protracted by G. A. Nelson

Soundings penciled by G. A. Nelson

Soundings in fathoms ~~feet~~

Plane of reference M L L W

Subdivision of wire dragged areas by

Inked by *E. A. Shaw*

Verified by *ED*

Instructions dated April 21., 1932

Remarks:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC FIELD SHEET #25

U.S.C. & G.S.S. DISCOVERER

H. B. Campbell, Comdg.

Scale - 1/20,000

Season 1932.

AUTHORITY

This survey was made under the Directors instructions dated April 21, 1932.

LIMITS

This sheet covers Izhut Bay, Afognak Island. It joins with sheets #24 and 42 on the SE. and with Register # H 3015 on the SW.

METHOD OF SURVEY

The greater part of the survey was made by motorsailer, using the hand lead up to 12 fathoms and the wire in greater depths. The hand lead lines were frequently checked during the progress of the work. The sheaves used in wire soundings were checked at the beginning and the end of the season and found correct.

The ship worked parts of two days near the center of the mouth of the bay, using the fathometer. Depths in this area are around 100 fathoms and many ^(10-12 ft day) of the fathometer readings _{100.}

obtained are questionable because of the difficulty in reading the fathometer at this depth.

The M. V. WESTDAHL worked chiefly in intermediate depths. Its fathometer corrections are attached to this report.

DISCREPANCIES & ADDITIONAL WORK RECOMMENDED

Discrepancies are noted in the WESTDAHL soundings in the vicinity of Lat. $58^{\circ}-09.4'$, Long. $152^{\circ}-17.0'$, pos. 66A-68A, 272B-273B, and 276-277B. (2 sds between pos.)

(u) Inasmuch as additional work will be required in the Bay, Mr. Scaife, in charge of the WESTDAHL, recommends that this be examined in the field. He further recommends that the area off the point on which station BAY is located be further developed. See note - Sounding vol. #8 page 11.

There are several questioned ships soundings at or near 100 fathoms positions 11-16A. It is recommended that additional vertical casts be taken in this area.

Due to the lateness of the season it was impractical to complete the survey to the required standard of accuracy.

GENERAL DESCRIPTION

Izhut Bay is characteristic of Alaskan coastline. Its shores and headlands and points are steep-to and rocky, fringed with kelp. Bights and coves have sand and gravel beaches at their extremities.

Bry

ANCHORAGES

The most important of these is the arm on the west side (Kitoi Bay) having its entrance about 3 miles NW of Peril Cape. This arm extends in a ~~WNW~~ direction about $2\frac{1}{2}$ miles, its head being a landlocked basin fully protected from all directions. To enter: steer 305° T passing the well defined N point of the entrance slightly less than $1/2$ mile. This course and distance will lie on a range defined by the tangent of the prominent point on the north side about $1\frac{3}{4}$ miles in, and the stream at the head of the small bight at the head of the arm. Continue on this course until within $\frac{1}{4}$ mile of the small prominent islet in midchannel. This position will be abeam of an islet to starboard, distance off $1/3$ mile, lying within 100 yds. of the north shore. To port of this position, distance off 125 yds., is a 3 fm. spot marked with a few streamers of kelp which are difficult to see. Steer midchannel courses here on to center of basin, which is clear to within a few yards from shore. A low water spit extends a few yards off the north entrance point. Anchor in 20-22 fms., good holding ground. in Kitoi Bay

Mid...

Small vessels may anchor in a small bight to the SW of the main basin, 11-12 fms., mud bottom.

Two finger-like arms extend about 2 miles northward in the NE corner of the main bay. The easterly arm has an island about

1/2 mile from its entrance. The passage is to the W of this island. The controlling depth is 2 fms. Small vessels may anchor above this island, 7-10 fms., sand bottom. About 125 yds. south of the island in the channel is a sunken rock, *pos 31 C Vol 8* covered 4 ft. at MLLW. The west arm contains a small island near its head with a rock awash at about MLLW lying about *pos 151 F PP 53 Vol 3* 200 yds. SE from it. The arm is otherwise clear but not particularly well protected from the south. ✓

A small bight on the west side of the bay, lying about 2 miles south of its head, is well protected and convenient for small vessels which may anchor close inshore. The center, over 30 fms. deep, makes it inconvenient for larger vessels to anchor. In entering, favor the southern shore to avoid a 1-4/8 fm. spot about 550 meters, 90° true, from a small bare *pos 22 d PP 48 Vol 2* rock on the northern side of its entrance.. ✓

*approved & Forwarded
H B Coughlin*

HYDROGRAPHIC FIELD SHEET # 25

STATISTICS

Vessel	Date	Day	Pos.No.	No. of Soundings			Miles of Sdg. line		
				H.L.	Wire	Fath.	H.L.	Wire	Fath.
S.M.S.	Aug.12	a	140	81	238	----	3.0	15.7	----
"	Aug.23	b	197	280	218	----	7.0	13.5	---
"	Sept.15	c	211	173	304	----	7.0	20.2	----
"	Sept.16	d	173	187	245	----	5.5	16.4	----
"	Sept.17	e	97	74	198	-----	2.3	11.5	----
"	Sept.19	f	171	131	293	----	4.9	19.3	----
"	Sept.21	g	117	93	185	----	2.6	11.3	----
"	Sept.22	h	165	360	158	----	12.5	7.5	----
"	Sept.23	j	159	165	230	----	5.8	15.7	----
"	Sept.24	k	125	248	98	-----	8.0	5.0	----
"	Sept.26	m	135	366	113	-----	14.0	8.2	----
"	Sept.28	n	141	----	266	----	----	28.3	----
"	Sept.29	p	147	----	277	----	----	28.2	----
WESTDAHL	Sept.22	A	170	----	41	500	----	3.7	36.6
"	Oct. 5	B	301	----	38	1014	----	2.4	76.0
"	Oct. 6	C	43	6	26	31	----	---	2.4
SHIP	Aug.23	A	44	---	1	116	----	----	24.6
"	Sept.30	B	31	----	----	115	----	----	15.0
Totals		18	2567	2164	2929	1776	72.6	206.9	154.6

FATHOMETER CORRECTIONS

HYDROGRAPHIC FIELD SHEET # 25

Date (1932)	Pos. No.	Temperature Surf. Bot.	Fath. Corr. Sdg.	Ver. T.&S. Cast Corr.	Index Corr.
8/23	44A	10.0 6.5	109.0	100.0	

APPROVAL OF CHIEF OF PARTY

Sheet #25 and accompanying records have been inspected by me. Both the field and office work were done under my supervision.

Additional work to clear up doubtful areas and fill up unsurveyed areas is recommended. ✓

It is recommended that the smooth sheet be returned for completion of the survey during the ensuing year.

Respectfully forwarded:

H. B. Campbell

H. B. Campbell,

Chief of Party, C. & G. Survey

FATHOMETER CORRECTIONS - (M.V. WESTDAHL)

HYDROGRAPHIC SHEET No.25

In obtaining fathometer corrections for this sheet all comparisons were listed and by inspection corrections were selected which seemed to be the average during the time the soundings were taken, allowance being made for uneven bottom. Corrections for salinity and temperature were not made as the corrections would be negligible in these depths. A mean correction cannot be taken for a whole day as the zero of the fathometer shifts during the days work.

FATHOMETER CORRECTIONS - (M.V. WESTDAHL)

HYDROGRAPHIC SHEET No. 25

Sept. 22, 1932

Pos.	V. C.	Fath.	Corr.
1 A	24.7	24.5	+ 0.2
7+A	20.6	20.5	+ 0.1
13 A	32.0	31.5	+ 0.5
28 A	25.6	25.5	+ 0.1
39+A	31.1	30.5	+ 0.6
72 A	29.5	28.0	+ 1.5
89 A	62.0	61.0	+ 1.0
103 A	62.7	61.5	+ 1.2
127 A	26.4	26.0	+ 0.4
166 A	46.0	46.0	0.0

Corrections to Fath. Soundings

Positions 1-33 --- 0.0 Fath.
 " 33-56 Add 0.5 "
 " 56-103 " 1.0 "
 " 127-146 " 0.5 "
 " 146-166 --- 0.0 "

Oct. 5, 1932

Pos.	V. C.	Fath.	Corr.
1 B	20.3	21.0	- 0.7
19 B	18.9	17.0	- 0.1
94 B	30.1	30.0	+ 0.1
136 B	20.2	20.0	+ 0.2
151 B	29.2	29.0	+ 0.2
193 B	37.9	37.5	+ 0.4
217 B	42.0	42.0	0.0
229+B	38.0	38.0	0.0 *
232 B	37.6	37.0	+ 0.6
248 B	27.5	27.5	0.0
301 B	27.0	27.0	0.0

* - Adjusted Fathometer.

Corrections to Fath. Soundings

Positions 1-10 Sub. - 0.5 Fath.
 " 10-231 ---- 0.0 "
 " 232-244 Add 0.5 "
 " 244-301 ---- 0.0 "

Oct. 6, 1932

Pos.	V. C.	Fath.	Corr.
32 C	21.0	21.0	0.0
43 C	27.4	27.0	+ 0.4

Corrections to Fath. Soundings

Positions 32-43 --- 0.0 Fath.

May 19, 1933.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 5257

Locality Izhut Bay, Afognak Island, Southwest Alaska

Chief of Party: H. B. Campbell in 1932

Plane of reference is mean lower low water, reading

3.6 ft. on tide staff at Izhut Bay

10.2 ft. below B. M. 1

8.7 ft. on tide staff at Marmot Island

5.9 ft. below B.M. 1

Height of mean higher high water above plane of reference in 8.9 ft. at
Izhut Bay; 9.8 ft. at Marmot Island.

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Paul P. Whitney
Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5257

The following statistics will be submitted with the
cartographer's report on the sheet:

Number of positions on sheet	<u>2567</u>
Number of positions checked	<u>356</u>
Number of positions revised	<u>10</u>
Number of soundings recorded	<u>6869</u>
Number of soundings revised	<u>19</u>
Number of signals erroneously plotted or transferred	<u>0</u>

Date: July 20, 1933

Cartographer: [Signature]

Section of Field Records:

Surveyed in 1932

Report on H. 5257

Chief of Party H. B. Campbell.

Surveyed by H. B. Campbell, W. M. Saife, & G. A. Nelson.

Protracted by G. A. Nelson.

Soundings plotted by G. A. Nelson.

Verified and Inked by ~~Ed. Shaw~~

1. The Records conform to the requirements of the General Instructions, except that no statement regarding correction or tests of sounding apparatus was tabulated in the records of the work done by the Starboard Motor Sailor. It is noted, however, that the note "Instruments OK" appeared at the beginning and ending of each days work, also that on page 1 of # "Method of Survey" of the Descriptive Report, it is stated that the lead lines were checked frequently and the sheaves were checked at the beginning and ending of the season and found correct.

2. The plan and character of development fulfill the requirements of the General Instructions except as noted in #3 of this Report.

H 5257 2

3. The plan and extent of development was not fully completed due to the end of the season. See Descriptive Report - page 2 "Discrepancies and Additional Work Recommended", also approval note by the Chief of Party.

4. Sounding line crossings are adequate for this survey.

5. The usual depth curves can be completely drawn except close in shore, and where there is insufficient development.

6. The Field Plotting was completed to the extent prescribed in the Hydrographic Manual and is considered excellent.

7. No part of the field drafting was done over; although several rock awash symbols and notes of Hydrographic importance were omitted; these were transferred from the Topographic sheet to the Hydrographic sheet.

8. This sheet makes a satisfactory junction with H 5258 on the southeast. The junction with H 5256 on the northeast will be considered in the verification of that sheet.

9. Remarks.

(a) Soundings from 272 B to 273 B inclusive have been left in pencil. (Lat. $58^{\circ}09.4$ and Long. $152^{\circ}17.0$) It is noticed that line 272-273 B would fall inside of the line 65-68 A if \odot Dob were used for the left object instead of \odot Dik. (Vol. 7, pp 68, 69) See Descriptive Report (#5257) page 27P Discrepancies and Additional Work Recommended.

(b) Soundings at or near 100 fathoms pos. 11-16 A (Vol. 9, pp 5) were questioned by the field - these have been left in pencil on the Smooth Sheet until further surveying either proves or disproves them. It is noticed that there is a considerable difference between the fathometer and V.C. comparison at pos 44 A. There is fair agreement of the soundings on this sheet (#5257) with the adjacent sheet #5258 in the vicinity of the 100 fathom curve with the exception of the 111 fm sounding at position 17 A and the 101 fm sounding next to the 86 at pos 18 A.

(c) The following rocks awash are shown on the Smooth sheet which are not shown on the Topographic sheet (#4738)

- rdy. ✓ 1. Rock awash 74 meters NW of \odot LK-bare 3' MLLW. on pos. 54 e, Vol 3, pp 15. Lat $58^{\circ}10.75'$ Long $152^{\circ}20.75'$
- rdy. ✓ 2. Rock awash 290 meters west by south of \triangle NAK 32 on pos. 104 d, Vol 2, pp 58. bare 1' MLLW. Lat $58^{\circ}14.30'$ Long $152^{\circ}19.35'$
- rdy 70 ✓ 3. Rock awash 46 meters SW of \odot Wat Lat $58^{\circ}12.65'$ Long $152^{\circ}18.65'$
- These rocks are fairly close inshore, generally surrounded by kelp and probably were not visible to the topographic party.

inked later
1946

(d) Further surveying is required to more fully develop the area $1\frac{1}{2}$ miles to the northwestward of Pril Cape — directed to (referred to in (a) line 272-273B.) Attention is directed to a 24 fathom sounding close to the 50 fm. curve at position 112 A Vol 7 pp. 20 Lat $58^{\circ}09.8'$ Long. $152^{\circ}16.42'$ Also a ^{on} line 162-163B about $\frac{3}{4}$ mi SW of ASLANT.

As recommended by the Field the area off the point on which A BAR is located should be further developed. Soundings on the turn between pos 5 and 6B are not plotted due to the uncertainty of their true position and because this area will probably be covered adequately when the additional work is executed.

Respectfully Submitted

Lothian
July 20. 1933.

DEPARTMENT OF COMMERCE

AND REFER TO No. 82-DRM

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 2, 1933.

SECTION OF FIELD RECORDS

Review of Hydrographic Survey No. 5257

Izhut Bay, Afognak Island, Alaska
Surveyed September-October 1932

Instructions dated April 21, 1932 (DISCOVERER)

Chief of Party, H. B. Campbell

Surveyed by H.B.C., W. M. Scaife, G. A. Nelson

Protracted and soundings plotted by G.A.N.

Verified and inked by L. S. Straw

1. The records conform to the requirements of the Hydrographic Manual except that more bottom characteristics should have been entered in the sounding records; also failure to enter fathometer soundings to half fathoms as required by paragraph 32.

2. The plan of development conforms to the requirements of the Hydrographic Manual and satisfies the specific instructions. The completion of the sheet was prevented by the close of the season. See descriptive report for recommendations and discrepancies not adjusted.

3. Soundings on shoals show steep slopes and irregular bottom. A recorded 22 (pos. 125 c, vol. 2) was discredited by adjacent soundings of 14 and 15 fathoms, lat. $58^{\circ} 08'.2$, long. $152^{\circ} 16'$. A 24 (112 A, vol. 7) in lat. $58^{\circ} 09'.8$, long. $152^{\circ} 16'.4$ is probably an error in recording. It has been plotted but further development in the vicinity is needed. The line 272-273 B, vol. 7, noted as a discrepancy in the descriptive report has not been plotted. It is not essential but further examination of the locality has been planned by the field party. Some of the fathometer soundings (12-16 A, vol. 9) have been questioned by the field party due to the difficulty of reading the fathometer when depths are close to 100 fathoms. They have been plotted as they are in fair agreement with adjacent soundings. Vertical casts in this area is part of the additional work recommended by the field party. These should be taken. *temporarily*

4. Depth curves in the completed area can be drawn satisfactorily.

5. Junctions with H. 5256 and H. 5258 to the southeast are satisfactory. The area to the southwest is not adequately surveyed, only a few soundings from H 3016 fall within the area covered by this sheet.

6. Comparison: A few soundings from H. 3016 (1909) fall within the area covered by H. 5257. The depths are in good agreement but the scale is small (1:80,000) and the development inadequate for comparison. Chart 8555 shows very little detail in Izhut Bay and has no information in conflict with this survey.

7. The field drafting was good. A few rocks awash were added to the sheet from the topographic sheets, apparently missed by the field party in making the transfer.

8. Recommendations: In addition to filling in the blank areas in the middle of Izhut Bay, the following areas should be further developed:

(a) The detached 19 about 1 1/2 miles northwest of Peril Cape and check the discrepancy in line 272-273 B as noted in the descriptive report; also the 17 fathom sounding 1/2 mile northwest.

(b) A further development of the bank 2 miles north of Peril Cape, especially the 24 plotted close to the 50 fathom curve at the southern end of the bank.

(c) Additional lines in the channels southeast of the point on which triangulation station Bay is located. See descriptive report.

(d) Vertical casts in the vicinity of the 100 fathom curve to check the fathometer work of 1932. See descriptive report (11 to 16 A, Ship).

This survey (H. 5257) is suitable for charting purposes.

9. Reviewed by R. J. Christman, July 27, 1933.

Approved:

L. O. Colbert

L. O. Colbert
Chief, Section of Field Records

F. S. Borden

F. S. Borden
Chief, Section of Field Work

L. O. Colbert

~~E. H. Pagenhart~~
Chief, Division of Charts

G. T. Rude

G. T. Rude
Chief, Div. of H. and T.

See Supplement Review for 1933 work

See Supplement Review 1933 work

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

AND REFER TO NO.

81-1221

August 2, 1933.

Hydrographic Survey 5257

Memorandum on additional work required to complete hydrographic survey of Islet Bay shown on H. 5257.

1. Lat. $33^{\circ} 15'.5$, long. $152^{\circ} 15'.5$, further development required of two shoals, least depths shown 16 and 17 fathoms. This development should be done by feeling about the area with a small boat to determine whether or not the least water has been obtained. Additional split lines should be run to give additional soundings in the two channels, one to the eastward and the other to the westward of these two shoals; also to cover the area immediately south of them.
2. Lat. $33^{\circ} 14'.2$, long. $152^{\circ} 16'.1$. An 8 $3/4$ fathom spot located on a sounding line was not examined. This should be developed.
3. Lat. $33^{\circ} 12'.7$, long. $152^{\circ} 17'.4$. Develop 45 fathom sounding and determine limits of 50 fathom curve.
4. Lat. $33^{\circ} 12'.6$, long. $152^{\circ} 16'$. Develop 41 fathom sounding located on sounding line without further examination.
5. Lat. $33^{\circ} 10'.5$, long. $152^{\circ} 14'$. Area not covered by hydrography, due to close of field season, to be sounded. ✓
6. Lat. $33^{\circ} 09'$, long. $152^{\circ} 15'$. Additional hydrography required for the same reason as in paragraph 5. The 50 fathom curve should be developed if soundings on the split lines in this area are not in excess of that depth. ✓
7. Lat. $33^{\circ} 10'.1$, long. $152^{\circ} 17'.6$. Additional development of this area should be made by feeling about the bottom with several sounding lines, using a small boat, to determine whether there is less water than the two 10 fathom rocky shoals found by running lines during the original development. This area is located off an important point leading into an excellent anchorage and would be subject to wire drag development if equipment were available.
8. Lat. $33^{\circ} 09'.8$, long. $152^{\circ} 18'.8$. Similarly develop the 10 fathom fathometer sounding. *Extend development to include 15 fathom spot to northward and 12 fathom spot to southward.*
9. Lat. $33^{\circ} 09'.8$, long. $152^{\circ} 16'.4$. The 24 fathom wire sounding requires development.

*Development should
be made to
include
24 & 16
fath indications*

Memorandum on additional work required, H. 5257.

10. Lat. $33^{\circ} 09'.2$, long. $152^{\circ} 17'.2$. Nineteen fathom sounding, with 17 fathom sounding about $1/2$ mile to the northwest. These two soundings should be further developed. Additional split lines should be run west of the 19 fathom sounding for the reason that the line between positions 87E and 87E B (Westdahl) is questionable. The shoal soundings along this line do not agree with adjacent lines and the field party recommended they not be plotted. The soundings may through doubt on the accuracy of the line immediately westward of the 19 fathom sounding.

11. Develop the 20 fathom curve immediately east of triangulation station Brass 2. Two split lines should be run in the vicinity of the 20 fathom sounding transferred to the boat sheet from the 1909 survey. ✓

12. Re-run area adjacent to the 100 fathom curve, taking ^{vertical} fathometer casts as recommended by the field party due to the limitation of reading the fathometer at this depth. ✓

Attention of the Chief of Party is called to the requirement in paragraph 22 of the Hydrographic Manual that soundings obtained by the fathometer in depths less than 100 fathoms should be recorded to the nearest half fathom.

As it may be of interest to the Chief of Party, a copy of the review as prepared for signature in approving the survey is inclosed.

L. O. Colbert
Chief, Section of Field Records.

5257

Additional work

U. S. COAST & GEODETIC SURVEY
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MAR 19 1934

Acc. No. _____

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: S. W. Alaska

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. H-5257

LOCALITY

Afognak Island

Izhut Bay

1933

CHIEF OF PARTY

H. B. Campbell

U. S. GOVERNMENT PRINTING OFFICE: 1929

Additional work

5257

Additional work

Additional work

5257

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. _____

REGISTER NO. H-5257

State ~~S. W.~~ Alaska _____

General locality Afognak Island _____

Locality Izhut Bay _____

Scale 1:20,000 Date of survey Sept. 21-23, 1933

Vessel DISCOVERER _____

Chief of Party H. B. Campbell _____

Surveyed by H. B. Campbell _____

Protracted by _____

Soundings penciled by _____

Soundings in fathoms ~~xxxx~~ _____

Plane of reference M. L. L. W. _____

Subdivision of wire dragged areas by _____

Inked by J. W. Day _____

Verified by J. W. Day and _____

Instructions dated April 21, 1932, March 25, 1933

Remarks: _____

DESCRIPTIVE REPORT

to accompany

SHEET H-5257

U.S.C. & G.S.S. DISCOVERER

H. B. Campbell, Commanding

Scale 1:20,000

Season of 1933

AUTHORITY

The additional work on this sheet was made under the Director's Orders and Instructions dated March 25, 1933 and April 21, 1932.

LIMITS

This work covers the incompleated area in Izhut Bay, and joins Sheet #41 (1933) on the south.

METHODS OF SURVEY

The ship was used to complete the hydrography in this area, using the fathometer red-light method. Some vertical casts were taken to verify the results obtained with the fathometer.

DISCREPANCIES AND ADDITIONAL WORK

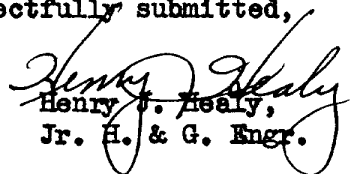
The discrepancy noted in last year's report, Positions 11-16A, was re-run this year and found to agree closely from Positions 13-16A. It is recommended that the soundings from 11A through 12A be rejected.

Due to the lateness of the season and more important areas to develop, the other additional work recommended in the 1932 report was not accomplished.

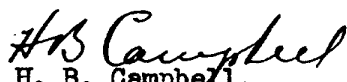
TIDAL NOTE

The automatic tide gage at Kodiak was used to determine the tidal reduction.

Respectfully submitted,


Henry J. Healy,
Jr. H. & G. Engr.

Approved and forwarded:


H. B. Campbell,
H. & G. Engr., Commanding.

HYDROGRAPHY SHEET H-5257

STATISTICS

Vessel	Date	Day	Positions	Number of Soundings		Miles of Sdg. Lines
				Fathometer	Wire	
Ship	Sept. 21	A	118	566	5	56.0
"	Sept. 22	B	41	243	2	27.8

Totals - - - - - 159 809 7 83.8

FATHOMETER COMPARISONS

Date	Pos. #	Temperature		Fath. Sdg.	Vert. Cast	Corr.	T. & S. Corr.	Index Correction
		Sur.	Bot.					
9-21-33	26 A'	8.5	8.0	60.0	59.0	-1.0	+0.7	-1.7
"	32 A'	8.0	6.0	115.0	106.1	-8.9	----	----
"	42 A'	8.2	5.8	99.0	98.2	-0.8	+1.0	-1.8
"	55 A'	8.0	---	90.0	88.6	-1.4	+1.0	-2.4
"	78 A'	8.0	---	97.0	95.4	-1.6	+1.0	-2.6
9-22-33	34 B'	7.8	---	87.0	86.3	-0.7	+1.0	-1.7
"	41 B'	7.8	6.8	87.0	86.8	-0.2	+1.0	-1.2

Sum -11.4

Mean Index Corr. -1.9

FATHOMETER CORRECTIONS - 1933

Sheet No. 5257

10 fms. - 50 fms.	=	- $1\frac{1}{2}$ fms.
51 " - 91 "	=	- 1 fm.
92 " & up	=	less than 1% no correction.

April 9, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
1 volume/s of sounding records for

HYDROGRAPHIC SHEET 5257 (Additional Work)

Locality Izhut Bay, Southwest Alaska

Chief of Party: H. B. Campbell

Plane of reference is mean lower low water, reading

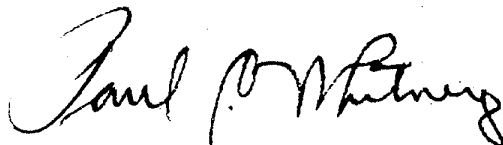
* 4.0 ft. on tide staff at Kodiak

19.9 ft. below B. M. 8

Height of mean higher high water above plane of reference is about 9 feet.

(*) Due to the depth Kodiak tides were used without correction. Since the tidal records for Kodiak are not yet available in this office the reducers have been checked with predictions. The soundings have not been reduced.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5257 (Additional Work)

The following statistics will be submitted with the
cartographer's report on the sheet:

Number of positions on sheet	...159.
Number of positions checked3.
Number of positions revised	..None..
Number of soundings recorded	...816.
Number of soundings revised	...24.
Number of signals erroneously plotted or transferredNone.....

Date:.....June 6, 1934.....

Cartographer:.....John M. Day.....

Verification of protracting by J.W. Day Time: 7 hrs.

Verification of inking by J.W. Day Time: 20.5 hrs.

Review by R.J. Christman Time: 9 hrs.

Section of Field Records

Report on H-5257 (Additional Work)

Verified and inked by J.W. Day

The records conform to the requirements of the General Instructions. ✓

The twenty fathom, fifty fathom and one hundred fathom curves were completed within the limits of the sheet. ✓

The plotting was completed to the extent prescribed in the General Instructions. ✓

No additional junctions were made with adjacent sheets as those sheets have not been verified at this date.

The soundings on the turns have been left in pencil as per the writer's instructions from Mr E.P. Ellis. ✓

Note was made of a bad crossing at Lat. $58^{\circ}-09'.4$ Long. $152^{\circ}-15'.8$ On the line of positions 9A and 10A the fathometer observer was relieved at position 9A. ✓

a bad crossing was observed at Lat. $58^{\circ}-09'.9$ Long $152^{\circ}-14'.2$ ✓

A group of soundings at Lat. $58^{\circ}-09'.5^8$ Long $152^{\circ}-13'.5$ do not appear to be satisfactory. ✓

Adjustment was made of a crossing involving positions 67A' to 68A' and 61A' at approximately Lat $58^{\circ}-10'$, Long $152^{\circ}-41'$. ✓

Note was made of two soundings made at an isolated position 19A' Lat $58^{\circ}-11.2$ Long. $152^{\circ}-14.7$ ✓
one sounding could not be plotted

A shoal occurs at approximately Lat. $58^{\circ} 06.3$
Long. $152^{\circ} 12.5$ This condition was not investigated
farther as the adjoining work on an adjacent sheet
was not verified at this date.

The additional work is identified by the
day positions A' and B' in red ink; ✓

The drafting was of good quality.

Respectfully submitted,
J. W. Day

June 6, 1934

Supplemental Review of H. 5257

(Additional work 1933)

This sheet is still incomplete. Only a part of the work recommended by the Chief of Party in the 1932 Descriptive Report was completed in 1933. The memorandum specifying the work necessary to complete H. 5257 was not received in time for the work to be done during the 1933 season.

The work done in 1933 is covered by par. 5, 6, 11 and 12 of the Memorandum (par. 8 and 8d of the Review), the other items, 1 to 4 and 7 to 10, both inclusive, remain uninvestigated.

8. The former blank area is sufficiently covered outside the 50 fathom curve except in the vicinity of lat. $58^{\circ}11'$, long. $152^{\circ}16'$ where the spacing of lines still greatly exceeds the specification in the instructions. The area is apparently deep water but close to the 50 fathom curve (item 5 and 6 of the memorandum).

The area in the vicinity of lat. $58^{\circ}10'$, long. $152^{\circ}13'.5$ where a 29 between two 33 falls in a general depth of 40 with a 19 about 200 meters to the eastward, shows the need of closer development inside the 50 fathom curve.

8d. The smooth sheet has been corrected for the additional work adjacent to the 100 fathom curve in the vicinity of lat. $58^{\circ}09'$, long. $52^{\circ}13'$ (item 12 of the memorandum).

The area mentioned in par. 11 of the memorandum seems to be sufficiently developed.

The survey fails to join H. 3015 by about 500 meters whereas the instructions call for an overlap with this sheet.

Supplemental review by - R. J. Christman - June 1934.

Additional work inspected by - A. L. Shalowitz.

K. T. Adams

K. T. Adams,
Chief, Section of Field Records.

J. B. Brown

Chief, Section of Field Work.

Examined and approved:

L. O. Roberts

Chief, Division of Charts.

G. H. Rude

Chief, Division of H. & T.

NAUTICAL CHARTS BRANCH

SURVEY NO. H-5257

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

Applied To Chart No.

8533 (1934), 1:80,000.

8534 (1935), 1:80,000. J. W. M.